

Fig. 1 Block Diagram of Complete Instrument, SPM-31/PSE-31

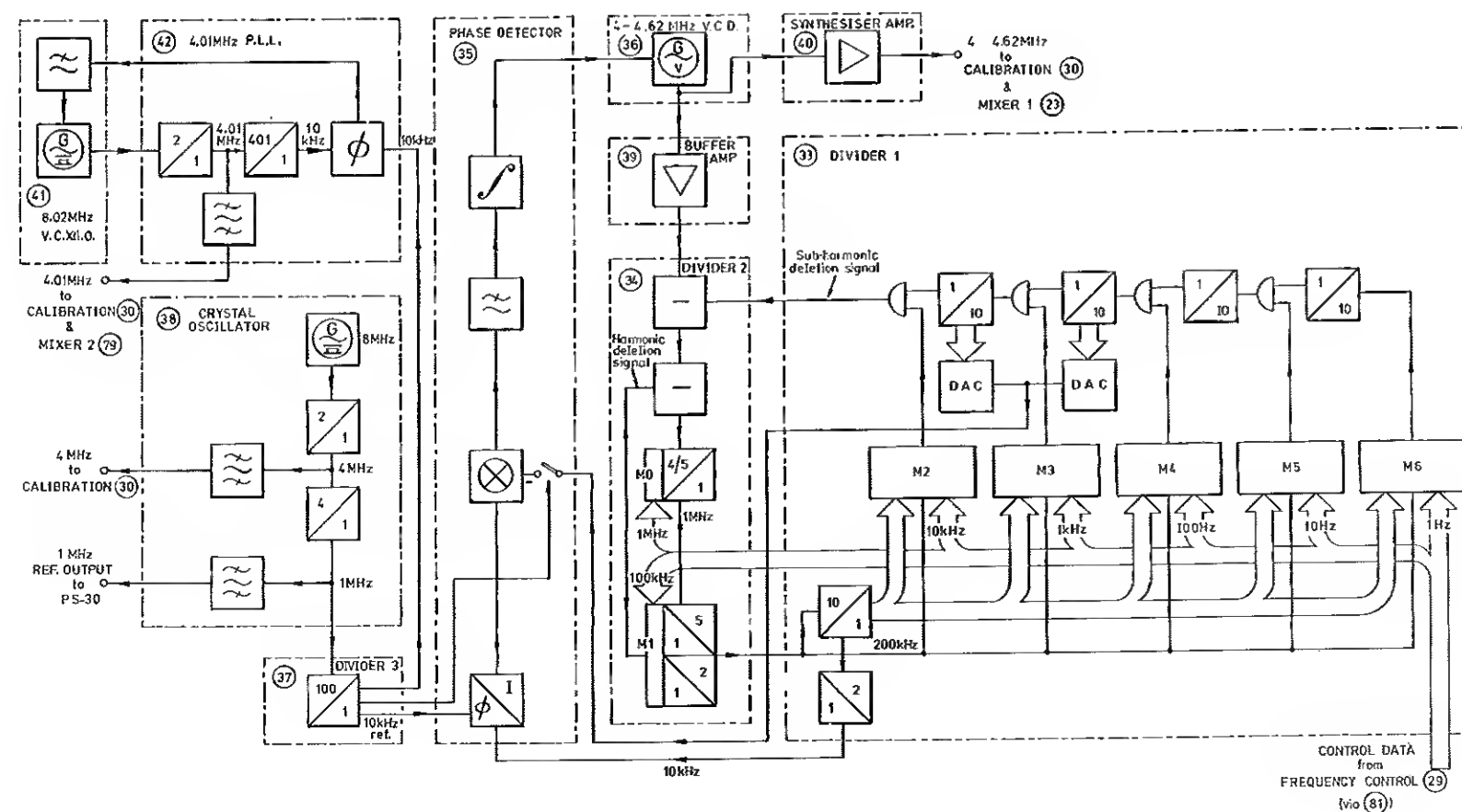




Fig. 2 Block Diagram of Synthesiser Assembly, (12)

(Used on the Parts Lists throughout this Appendix)

MF	Metal Film
Tant.	Tantalum
Cer.	Ceramic
PE	Polyester
PV	Polystyrene Film
CF	Carbon Film
W/W	Wirewound
Elec.	Electrolytic
Var.	Variable
Al. Ox.	Aluminium Oxide

Key to Component Type Abbreviations

PARTS MOUNTED ON OR FORMING PART OF FRONT PANEL

TYPE	PART NO.
METER, DS 48 SIFAM (with VOLTAGE SCALE)	4502-8103.009/4
C.F. SOCKET, 3-pole (BALANCED INPUTS)	0000-3713.006/4
SWITCH, SLIDE D.P.S.T. (dB/dBm SWITCH)	0001-7604.409/-
VERSACON BODY	0000-1681.004/5
VERSACON LOCKING RING (UNBALANCED INPUT)	0000-1672.055/5
RESISTOR, VARIABLE (CAL. ∇ /WIDE) 10k, 1W	0000-7545.270/-
RESISTOR, VARIABLE (CAL. ∇ /SELECTIVE) 10k, 1W	0000-7545.270/-
SWITCH, ROTARY (MEAS. RANGE)	0000-7602.469/4
SOCKET, EARTHING	0000-3004.045/4
SWITCH BUTTON (CHECK BATT. and )	
PSE-31 O/P LEVEL	0000-3705.425/5
SWITCH, MICRO (CHECK BATT. and )	
PSE-31 O/P LEVEL	0001-0034.176/-
L.E.D., RED (MAINS ON)	0001-0064.036/-
TACHO. GENERATOR (TUNING CONTROL)	0B29-7036.B21/5
SWITCH, SLIDE D.P.D.T. (MEAS./CHARGE/OFF)	0001-0069.439/-
VERSACON BNC ADAPTOR	0000-1674.008/5
KNOB (O/P LEVEL)	0000-7500.383/-
CAP, KNOB (O/P LEVEL)	0000-7500.396/-
KNOB (FINE)	0001-0063.396/-
CAP, KNOB (FINE)	0001-0063.707/-
KNOB (FREQUENCY CONTROL)	0001-0063.422/-
CAP, KNOB (FREQUENCY CONTROL)	0001-0063.710/-
KNOB (MEAS. RANGE)	0001-0063.493/-
CAP, KNOB (MEAS. RANGE)	0001-0063.749/-
KNOB (CAL. ∇ WIDE and SELECTIVE)	0001-0063.354/-
CAP, KNOB (CAL. ∇ WIDE and SELECTIVE)	0001-0063.684/-
SWITCH, SLIDE, O.P.O.T.(USB/OFF/LSB)	0001-0069.439/-

REAR PANEL

VALUE	RATING	TYPE	PART NO.
T315mA	250V	SWITCH, (BATT CHARGER ON/OFF)	0001-7604.409/-
		SOCKET, BNC	0000-7598.696/-
		FUSELINK, BELLING-LEE 2080A/0.315A	0001-0020.601/-
T630mA	115V	OR	
		FUSELINK, BELLING-LEE 2080A/0.63A	
		FUSEHOLDER, BELLING-LEE L2006A (20m x 5mm)	0000-7602.236/-
		BATTERIES, BEREC NCC400 SIZE D (12 used)	0000-7594.849/-
T1A	BATT.	FUSELINK, ANTI-SURGE	0001-0020.711/-



COMPLETE CHASSIS ASSEMBLY

REF.	TYPE	PART NO.
A10	ASSEMBLY, TRACKING OSCILLATOR PSE-31 Includes ASSEMBLY, P.C.B. A80, PSE-31	4502-1110.002/2 4502-1080.006/2
A104	ASSEMBLY, PDWER UNIT Includes ASSEMBLY, P.C.B. A84, POWER SUPPLY	4502-11B9.004/2 4502-1084.002/3
A22	ASSEMBLY, PRE-AMPLIFIER	4502-1122.006/3
A23	ASSEMBLY, MIXER 1	4505-1023.004/3
A27	ASSEMBLY, I.F. AMPLIFIER & PROM	4502-1027.001/3
A29	ASSEMBLY, FREQUENCY CONTROL	4505-1029.008/3
A30	ASSEMBLY, CALIBRATION	4502-1030.001/3
A32	ASSEMBLY, DISPLAY	4502-1032.009/3
A33	ASSEMBLY, DIVIDER 1	4502-1033.008/3
A34	ASSEMBLY, DIVIDER 2	4502-1034.007/3
A35	ASSEMBLY, PHASE DETECTOR	4502-1035.006/3
A36	ASSEMBLY, 4...4.62MHz V.C.D.	4502-1036.005/3
A37	ASSEMBLY, DIVIDER 3	4502-1037.004/3
A3B	ASSEMBLY, 8MHz CRYSTAL OSC	4502-1038.003/3
A39	ASSEMBLY, BUFFER AMP.	4502-1039.002/3
A40	ASSEMBLY, SYNTHESISER AMPLIFIER	4502-1040.004/3
A41	ASSEMBLY, 8.02MHz V.C.O.	4502-1041.003/3
A42	ASSEMBLY, 4.01MHz P.L.L.	4502-1042.002/3
A66	ASSEMBLY, 4MHz B/P FILTER UNIT Includes ASSEMBLY, P.C.B. A24	4502-1166.000/3 4502-1024.004/3
A77	ASSEMBLY, 24Hz FILTER	4502-1077.006/3
A79	ASSEMBLY, MIXER 2	4502-1079.004/3
A81	ASSEMBLY, INTERCONNECTION	4502-1081.005/3
A82	ASSEMBLY, MATCHING UNIT	4502-1082.004/3
A83	ASSEMBLY, METER AND DEMODULATOR	4502-1083.003/3

A81 INTERCONNECTION BOARD

REF.	VALUE	TOL. \pm %	RATING	TYPE	PART NO.
SK1				SOCKET, OIL 16-WAY	0000-7518.391/-
SK2				SOCKET, EDGE	
SK3				CONNECTOR 10-WAY	0000-7602.317/-
				10 + 10-WAY	0000-7602.304/-
SK4				SOCKET, EDGE CONNECTOR	
SK5				36-WAY	0000-7602.333/-
				SOCKET, EDGE CONNECTOR	
SK6				36-WAY	0000-7602-294/-
				SOCKET, EDGE CONNECTOR	
SK7				20-WAY	0000-7602.320/-
SK8				SDCKET, DIL 16-WAY	0000-7518.391/-
SK10				SDCKET, DIL 16-WAY	0000-7518.391/-
S1				SDCKET, DIL 16-WAY	0000-7518.391/-
S2				SWITCH, 4-PUSHBUTTON (MODE)	4502-1074.009/4
				SWITCH, 3-PUSHBUTTON (BANDWIDTH)	4502-1075.008/4
S3				SWITCH, 3-PUSHBUTTON (FREQUENCY CONTROL)	4502-1076.007/4
				CAPS FOR SWITCHES ABOVE	0000-7602.744/-
ABI				P.C.B., INTERCONNECTION	4502-1081.005/3
R1	12k1	1	0W35	MF	0001-0002.218/-
C1	220 μ		10V		0001-0041.842/-
C2	22n		10V		0001-0006.416/-

CABLE ASSEMBLIES

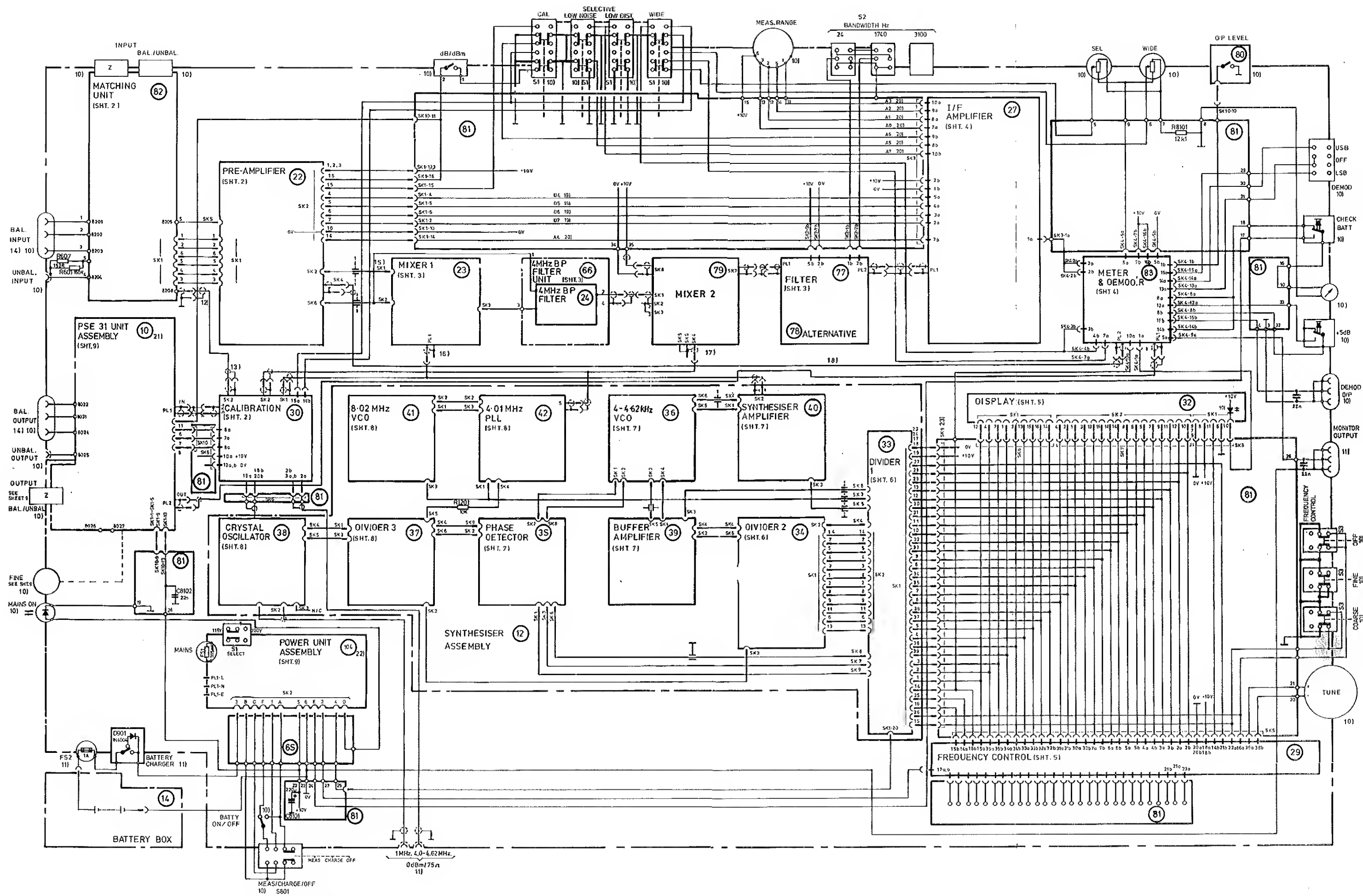
TYPE	PART NO.
CABLE ASSEMBLY, INTERCONNECTION TO DISPLAY 75mm Long	4502-1060.013/4
CABLE ASSEMBLY, INTERCONNECTION TO DISPLAY 90mm Long	4502-1060.026/4
CABLE ASSEMBLY, PRE-AMPLIFIER TO INTERCONNECTION	4502-1062.008/4
CABLE ASSEMBLY, PSE-31 TO INTERCONNECTION	4502-1063.007/4
CABLE ASSEMBLY, PART OF INTERCONNECTION, 40-way	4502-1064.006/4
CABLE ASSEMBLY, DIVIDER 1 TO DIVIDER 2, 14-way	4502-1067.016/4
CABLE ASSEMBLY, MATCHING UNIT TO PRE-AMPLIFIER, 14-way	4502-1067.029/4
CABLE ASSEMBLY, CONNECTING CALIBRATION TO MIXER 1 and SYN. AMP., and CALIBRATION TO MIXER 2 and 4.01MHz P.L.L., COAXIAL	4502-1069.001/3
CABLE ASSEMBLY, from SOCKET  on REAR PANEL TO INTERCONNECTION, COAXIAL	4502-1071.001/4
CABLE ASSEMBLY, from SOCKET  on REAR PANEL TO CRYSTAL OSCILLATOR, COAXIAL	4502-1072.001/4
CABLE ASSEMBLY, 24Hz FILTER TO I/F AMPLIFIER, COAXIAL	4502-1051.019/4
CABLE ASSEMBLY, PSE-31 TO METER, COAXIAL	4502-1051.022/4
CABLE ASSEMBLY, CALIBRATION TO MATCHING UNIT, COAXIAL with Fe BEADS	4502-1053.004/4
CABLE ASSEMBLY, 24Hz FILTER TO MIXER 2, COAXIAL	4502-1054.016/4
CABLE ASSEMBLY, MIXER 1 TO MIXER 2, COAXIAL	4502-1054.029/4
CABLE ASSEMBLY, PSE-31 TO CALIBRATION, COAXIAL with Fe BEADS	4502-1056.001/4
CABLE ASSEMBLY, METER TO PRE-AMPLIFIER, COAXIAL	4502-1057.000/4
CABLE ASSEMBLY, 4MHz FILTER TO INTERCONNECTION, COAXIAL	4502-1058.009/4
CABLE ASSEMBLY, POWER SUPPLY TO MIXER 2 (+10V)	4502-1073.000/4
CABLE ASSEMBLY, POWER SUPPLY TO REST OF INSTRUMENT includes P.C.B. A46	4502-1065.005/1 4502-0146.006/3

SPARES

VALUE	RATING	TYPE	PART NO.
TO.315A	250V	FUSELINK, BELLING-LEE 2080A/0.315A ANTI-SURGE	0001-0020.601/-
T1A	BATT.	FUSE LINK, ANTI-SURGE	0001-0020.711/-
		BATTERIES, BEREC NCC400 SIZE D (12 used)	0000-7594.849/-

ACCESSORIES

CABLE ASSEMBLY, MAINS
2 metres long, 3-core
L1949 BELLING-LEE



- 10) ON FRONT PANEL
 11) ON REAR PANEL
 12) -40dB
 13) SEL: 200Hz - 620 kHz
 WIDE BAND: 10kHz
 14) 200Hz - 620 kHz
 15) -20dB
 16) 4 - 4.62 MHz
 17) 4.01 MHz
 18) 200 Hz - 620 kHz
 19) DATA LINES D4-D7
 20) ADDRESS LINES A0-A7
 21) INCORPORATING ASSEMBLY A80
 22) INCORPORATING ASSEMBLY A44
 23) SK9 REPRESENTED BY PLATED THRO' HOLES ONLY.

Fig. 3 Interconnections Diagram

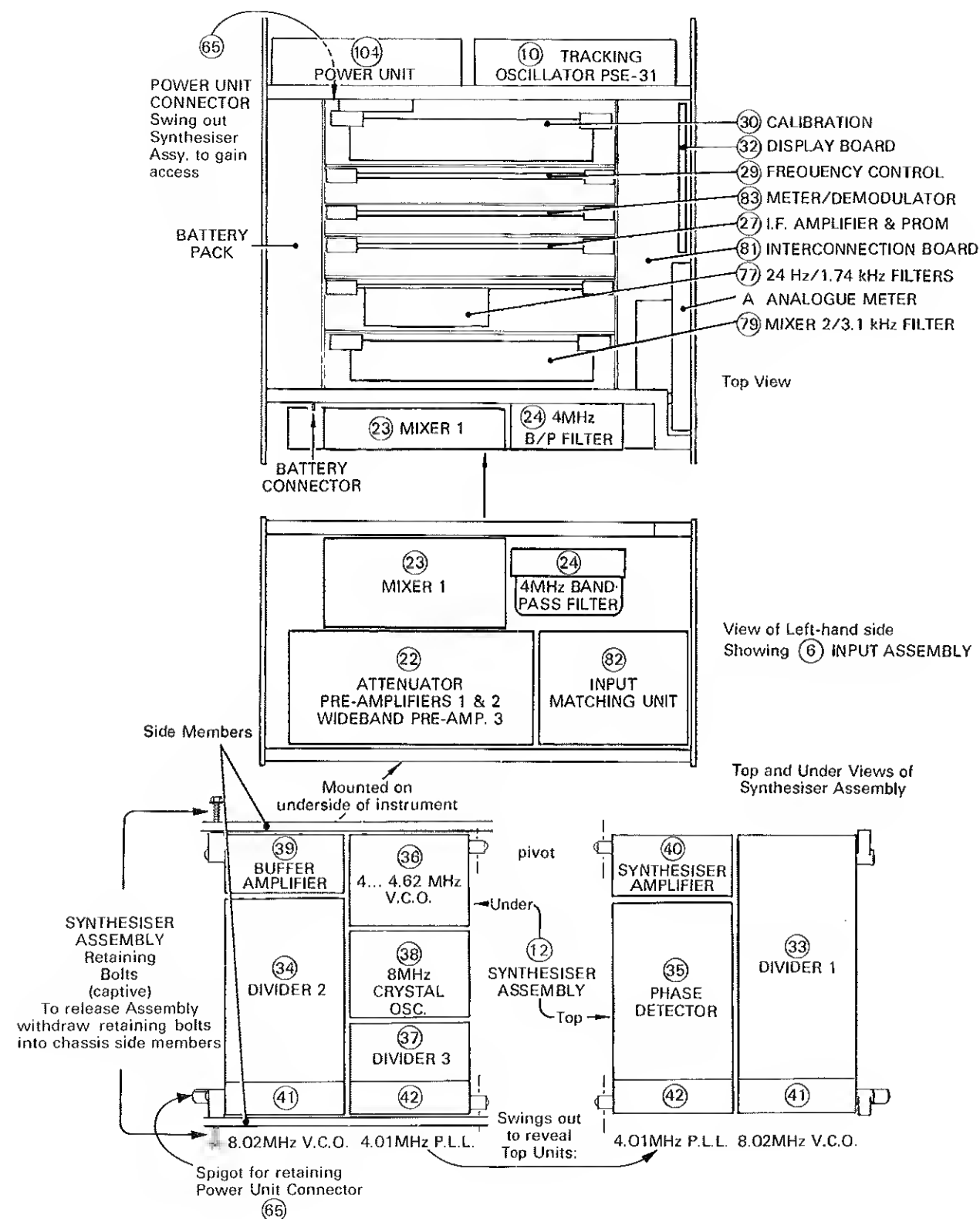
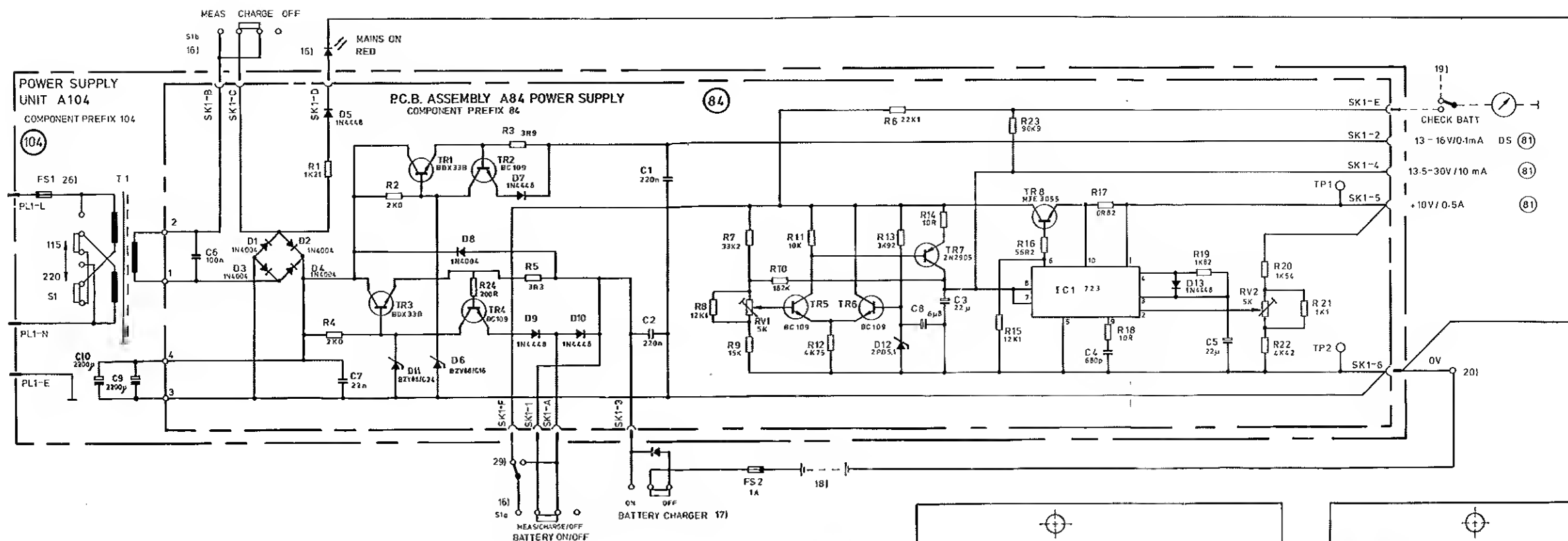


Fig. 4 Location of units within Instrument

Fig. 5 Circuit Diagram,
Power Supply (104)

15) OUTPUT LEVEL MONITOR FACILITY
16) ON FRONT PANEL MAINS ON
17) ON BACK PANEL
18) BATTERY BOX
19) FROM METER BOARD VIA INTERCONNECTION BOARD.
20) TO INTERCONNECTION BOARD PIN 23
26) 220V-315mA 115V-630mA
27) FINE LEVEL CONTROL
28) RESISTORS NOT FITTED ON STD SERIES
29) COVER OPERATED OFF SWITCH



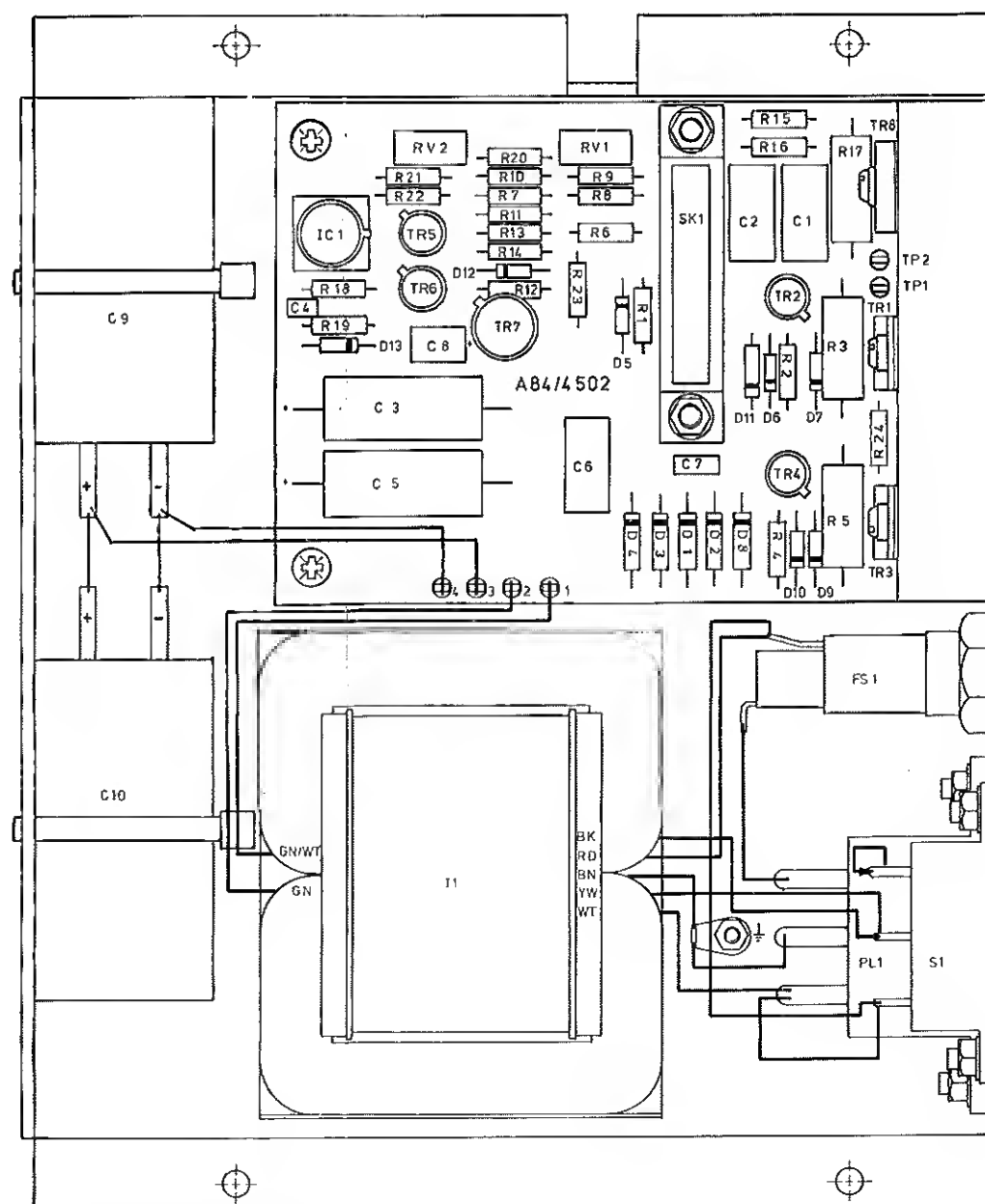
ASSEMBLY A104 POWER SUPPLY

REF.	VALUE	TOL. ± %	RATING	TYPE	PART NO.
C9	2200μ		40V	ELEC.	0000-7646.289/-
C10	2200μ		40V	ELEC.	0000-7646.289/-
S1				SELECTOR SWITCH	
			115V/220V		0000-7598.706/-
T1				MAINS TRANSFORMER	4502-1308.005/4
PL1				PLUC, MAINS INPUT	0001-0033.261/-
FS1			250V	FUSELINK, T 315mA	0001-0020.601/-
			115V	FUSELINK, T 630mA	
FS2			Batt.	FUSELINK, T 1A	0001-0020.711/-
A84				P.C.B. POWER SUPPLY UNIT	4502-1084.002/3

ASSEMBLY P.C.B. A84, used on A104 POWER SUPPLY

REF.	VALUE	TOL. ± %	RATING	TYPE	PART NO.
R1	1k21	1	0W35	MF	0001-0001.277/-
R2	2k	1	0W35	MF	0001-0001.455/-
R3	3R9	5	1W6	W/W	0000-7601.583/-
R4	2k	1	0W35	MF	0001-0001.455/-
R5	3R3	5	1W6	W/W	0000-7601.570/-
R6	22k1	1	0W35	MF	0001-0002.441/-
R7	33k2	1	0W35	MF	0001-0002.603/-
R8	12k1	1	0W35	MF	0001-0002.218/-
R9	15k	1	0W35	MF	0001-0002.289/-
R10	182k	1	0W35	MF	0001-0003.165/-
R11	10k	1	0W35	MF	0001-0002.137/-
R12	4k75	1	0W35	MF	0001-0001.824/-
R13	3k92	1	0W35	MF	0001-0001.730/-
R14	10R	1	0W35	MF	0001-0000.074/-
R15	12k1	1	0W35	MF	0001-0002.218/-
R16	56R2	1	0W35	MF	0001-0000.346/-
R17	0R82	5	2W	W/W	0000-7601.596/-
R18	10R	1	0W35	MF	0001-0000.074/-
R19	1k82	1	0W35	MF	0001-0001.413/-
R20	1k54	1	0W35	MF	0001-0001.361/-
R21	1k1	1	0W35	MF	0001-0001.235/-
R22	4k42	1	0W35	MF	0001-0001.785/-

REF.	VALUE	TOL. ± %	RATING	TYPE	PART NO.
R23	90k9	1	0W35	MF	0001-0002.975/-
R24	200R	1	0W35	MF	0001-0000.676/-
RV1	5k	20	0W5 Lin.	Variable	0000-7574.283/-
RV2	5k	20	0W5 Lin.	Variable	0000-7574.283/-
C1	220n		100V		0001-0010.404/-
C2	220n		100V		0001-0010.404/-
C3	22μ		40V	Elec.	0001-0041.716/-
C4	680p	10	63V	Cer.	0001-0004.685/-
C5	22μ		40V	Elec.	0001-0041.716/-
C6	100n	10	100V		0001-0010.365/-
C7	22n	10	40V		0001-0006.418/-
C8	6μ8		35V	Elec.	0001-0040.856/-
TR1			BDX 33B		0000-7591.059/-
TR2			BC109		0000-7602.029/-
TR3			BDX 33B		0000-7591.059/-
TR4			BC109		0000-7602.029/-
TR5			BC109		0000-7602.029/-
TR6			BC109		0000-7602.029/-
TR7			2N2905		0001-0017.287/-
TR8			MJE 3055		0001-0017.148/-
D1			1N4004		0000-7605.026/-
D2			1N4004		0000-7605.026/-
D3			1N4004		0000-7605.026/-
D4			1N4004		0000-7605.026/-
D5			1N4448		0001-0018.493/-
D6			BZY88/C16		0001-0019.159/-
D7			1N4448		0001-0018.493/-
D8			1N4004		0000-7605.026/-
D9			1N4448		0001-0018.493/-
D10			1N4448		0001-0018.493/-
D11			BZY88/C24		0001-0019.201/-
D12			ZPD 5.1		0001-0018.833/-
D13			1N4448		0001-0018.493/-
IC1			μA 723		0001-0015.852/-
SK1			EDGE CONNECTOR, 12-WAY		0000-7606.054/-
A84			P.C.B. POWER SUPPLY UNIT (Less components)		4502-0284.007/3



CIRCUIT REFERENCES TO BE PRECEDED BY BOARD ASSEMBLY NUMBER e.g.
IC1 BECOMES IC8401
T1 " " T10401

Fig. 6 Component Layout,
Power Supply (104)

ASSEMBLY FOR P.C.B. A82 MATCHING UNIT

REF.	VALUE	TOL. ±%	RATING	TYPE	PART NO.
R1*	150R	0.25	1W	MF	0000-7549.603/-
R2	150R	0.25	1W	MF	0000-7549.603/-
R3	604R	0.25	1W	MF	0000-7511.262/-
R4	523R	1	0W35	MF	0001-0000.993/-
R5	75R5	0.1	0W125	MF	0000-7601.567/-
R6	8k25	2	0W35	MF	0001-0002.056/-
R7*	152R	0.25	1W	MF	0000-7549.616/-
R8	432R	1	0W35	MF	0001-0000.935/-
R109	10k	1	0W35	MF	0001-0002.137/-
R110	56k2	2	0W35	MF	0001-0002.797/-
RV1	500R	20	0W5	Var.	0000-7601.651/-
C1	47u	+50-10%		B42190-C8476-T	0001-7520.460/-
C3	100p	2			0001-0004.517/-
C80	10n	10	40V	Cer.	0001-0004.818/-
C81	1u	20	35V	Tant.	0001-0040.704/-
TR20				BCY71	0001-0016.534/-
D22				1N914 or 1N4448	0001-0018.493/-
D31				1N914 or 1N4448	0001-0018.493/-
VC1	2 - 18p			809-05003	0000-7598.463/-
S1 to S6				INPUT IMPEDANCE	
				SWITCHING	4502-1089-007/4
L1	470uH			INDUCTOR	0000-7598.683/-
T1				TRANSFORMER	4502-1304.009/4
SK1				SOCKET, O.I.L. 14-WAY	0000-7518.388/-
RL1				RSD - 12V	0001-0069.620/-
RL2				RSO - 12V	0001-0069.620/-
A82				P.C.B., MATCHING UNIT	4502-0260.005/3

* Shown as R0601 and R0607 respectively on the circuit diagram.

ASSEMBLY P.C.B. A22 PRE-AMPLIFIER & ATTENUATOR

REF.	VALUE	TOL. ±%	RATING	TYPE	PART NO.
R7	9k	0.1	0W125	MF	0000-7601.512/-
R8	1k11	0.1	0W125	MF	0000-7601.402/-
R9	9k	0.1	0W125	MF	0000-7601.512/-
R10	1k11	0.1	0W125	MF	0000-7601.402/-
R11	11k	0.1	0W125	MF	0000-7598.277/-
R15	100k	1	0W35	MF	0001-0002.991/-
R16	22k1	1	0W35	MF	0001-0002.441/-
R17	33k	2	0W25	MF	4980-0000.009/-
R18	68R1	1	0W35	MF	0001-0000.427/-
R19	162R	1	0W35	MF	0001-0003.958/-
R20	3k16	1	0W35	MF	0001-0001.646/-
R21	1k65	1	0W35	MF	0001-0059.232/-
R22	68R1	1	0W35	MF	0001-0000.427/-
R23	100R	1	0W35	MF	0001-0000.537/-
R24	845R	1	0W35	MF	0001-0017.587/-
R25	1k1	1	0W35	MF	0001-0001.235/-
R26	68R1	1	0W35	MF	0001-0000.427/-
R27	2k67	1	0W35	MF	0001-0001.578/-
R28	681R	1	0W35	MF	0001-0001.086/-
R29	4k7	2	0W25	MF	0001-0000.811/-
R30	68R1	1	0W35	MF	0001-0000.427/-
R31	619R	1	0W35	MF	0001-0001.044/-
R32	750R	1	0W35	MF	0001-0001.125/-
R33	221R	1	0W35	MF	0001-0000.715/-
R34	2k67	1	0W35	MF	0001-0001.578/-

REF.	VALUE	TOL. ±%	RATING	TYPE	PART NO.
R35	324R	1	0W35	MF	0001-0000.825/-
R36	301R	1	0W35	MF	0001-0000.799/-
R37	71R5	1	0W35	MF	0001-0000.443/-
R38	150R	1	0W35	MF	0001-0000.618/-
R39	619R	1	0W35	MF	0001-0001.044/-
R40	5k62	1	0W35	MF	0001-0001.895/-
R41	4k7	2	0W25	MF	0001-0001.811/-
R42	22k1	1	0W35	MF	0001-0002.441/-
R43	100R	1	0W35	MF	0001-0000.537/-
R50	22k1	1	0W35	MF	0001-0002.441/-
R51	33k	2	0W25	MF	4980-0000.009/-
R52	68R1	1	0W35	MF	0001-0000.427/-
R53	3k16	1	0W35	MF	0001-0001.646/-
R54	1k65	1	0W35	MF	0001-0059.232/-
R55	330R	2	0W25	MF	0000-7601.389/-
R56	68R1	1	0W35	MF	0001-0000.427/-
R57	100R	1	0W35	MF	0001-0000.537/-
R58	845R	1	0W35	MF	0001-0018.587/-
R59	1k1	1	0W35	MF	0001-0001.235/-
R60	68R1	1	0W35	MF	0001-0000.427/-
R61	2k67	1	0W35	MF	0001-0001.578/-
R62	681R	1	0W35	MF	0001-0001.086/-
R63	4k7	2	0W25	MF	0001-0001.811/-
R64	68R1	1	0W35	MF	0001-0000.427/-
R65	1k0	1	0W35	MF	0001-0001.219/-
R66	750R	1	0W35	MF	0001-0001.125/-
R67	100R	1	0W35	MF	0001-0000.537/-
R68	470R	2	0W25	MF	0000-7560.608/-
R69	732R	1	0W35	MF	0001-0001.112/-
R70	402R	1	0W35	MF	0001-0000.906/-
R71	243R	2	0W25	MF	0001-0000.731/-
R72	68R1	1	0W35	MF	0001-0000.427/-
R73	2k21	1	0W35	MF	0001-0001.497/-
R75	2k0	1	0W35	MF	0001-0001.455/-
R80	22k1	1	0W35	MF	0001-0002.441/-
R81	15k	1	0W35	MF	0001-0002.289/-
R82	15k	1	0W35	MF	0001-0002.289/-
R83	68R1	1	0W35	MF	0001-0000.427/-
R84	68R1	1	0W35	MF	0001-0000.427/-
R85	698R	1	0W35	MF	0001-0001.099/-
R86	75R	1	0W35	MF	0001-0000.456/-
R87	330R	2	0W25	MF	0000-7601.389/-
R88	68R1	1	0W35	MF	0001-0000.427/-
R89	18k	2	0W25	MF	0001-0027.484/-
R90	47k	2	0W25	MF	0000-7558.393/-
R91	47R	2	0W25	MF	0000-7601.321/-
R92	432R	1	0W35	MF	0001-0000.935/-
R94	33k	2	0W25	MF	4980-0000.009/-
R95	22k1	1	0W35	MF	0001-0002.441/-
R96	68R1	1	0W35	MF	0001-0000.427/-
R97	1k5	1	0W35	MF	0001-0001.358/-
R98	75R	1	0W35	MF	0001-0000.456/-
R99	4k7	2	0W25	MF	0001-0001.811/-
R100	22R1	1	0W35	MF	0001-0000.184/-
R102	33R	2	0W25	MF	0000-7601.347/-
R112	22k1	1	0W35	MF	0001-0002.441/-
R113	56k2	1	0W35	MF	0001-0002.797/-

REF.	VALUE	TOL. ±%	RATING	TYPE	PART NO.
R114	22k1	1	0W35	MF	0001-0002.441/-
R115	56k2	1	0W35	MF	0001-0002.797/-
R116	56k2	1	0W35	MF	0001-0002.797/-
R117	22k1	1	0W35	MF	0001-0002.441/-
R118	56k2	1	0W35	MF	0001-0002.797/-
R119	22k1	1	0W35	MF	0001-0002.441/-
R120	56k2	1	0W35	MF	0001-0002.797/-
R121	22k1	1	0W35	MF	0001-0002.441/-
R122	9 x 100k	2	0W2	RESISTOR PACK	0000-7604.441/-
R123	1k5	1	0W35	MF	0001-0001.358/-
C5	4p7	0p25	63	Cer.	0001-0004.083/-
C6	15p	2	63	Cer.	0001-0004.229/-
C7	4p7	0p25	63	Cer.	0001-0004.083/-
C8	22p	2	63	Cer.	0001-0004.290/-
C10	220n	10	100	PE	0001-0010.404/-
C11	33p	2	63	Cer.	0001-0004.342/-
C12	33u	20	10	Tant.	0001-0040.995/-
C13	22p	2	63	Cer.	0001-0004.290/-
C14	33p	2	63	Cer.	0001-0004.342/-
C15	220u	20	10	Tant.	0001-0041.208/-
C16	330u	20	6.3	Tant.	0001-0041.211/-
C17	68p	2	63	Cer.	0001-0004.452/-
C18	220p	2	63	Cer.	0001-0004.601/-
C19	10n	20	100	Cer.	0001-0004.818/-
C20	1u	20	35	Tant.	0001-0040.704/-
C30	1u	20	35	Tant.	0001-0040.704/-
C31	33p	2	63	Cer.	0001-0004.342/-
C32	33u	20	10	Tant.	0001-0040.995/-
C33	22p	2	63	Cer.	0001-0004.290/-
C34	33p	2	63	Cer.	0001-0004.342/-
C35	100u	20	10	Tant.	0001-0041.156/-
C36	330u	20	6.3	Tant.	0001-0041.211/-
C37	47p	2	63	Cer.	0001-0004.397/-
C38	82p	2	63	Cer.	0001-0004.481/-
C40	47p	2	63	Cer.	0001-0004.397/-
C41	47p	2	63	Cer.	0001-0004.397/-
C42	100n	20	100	Cer.	0000-7598.450/-
C43	100n	20	100	Cer.	0000-7598.450/-
C44	100n	20	100	Cer.	0000-7598.450/-
C45	100n	20	100	Cer.	0000-7598.450/-
C46	100n	20	100	Cer.	0000-7598.450/-
C47	100n	20	100	Cer.	0000-7598.450/-
C50	6u8	20	6.3	Tant.	0001-0040.830/-
C51	1u	20	35	Tant.	0001-0040.704/-
C52	220u	20	10	Tant.	0001-0041.208/-
C53	1u	20	35	Tant.	0001-0040.704/-
C54	1u	20	35	Tant.	0001-0040.704/-
C55	220u	20	10	Tant.	0001-0041.208/-
C60	100n	20	100	Cer.	0000-7598.450/-
C82	10n	20	100	Cer.	0001-0004.818/-
C83	10n	20	100	Cer.	0001-0004.818/-
C84	10n	20	100	Cer.	0001-0004.818/-
C85	10n	20	100	Cer.	0001-0004.818/-
C86	10n	20	100	Cer.	0001-0004.818/-
C87	10p	2	63	Cer.	0001-0004.177/-
C88	1u	20	35	Tant.	0001-0040.704/-
TR1				2N2369A	4975-0000.007/-